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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/536,945	03/28/2000	Michael A Epstein	US000032	5466

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PHILIPS INTELLECTUAL PROPERTY & STANDARDS  
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EXAMINER

TRAN, TONGOC

ART UNIT	PAPER NUMBER
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2134

DATE MAILED: 12/31/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/536,945

Applicant(s)

EPSTEIN ET AL.

Examiner

Tongoc Tran

Art Unit

2134

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on 28 March 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☐ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 1-40 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner:
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☒ Notice of Draftperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4. 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

1. This office action is in response to applicants' application serial no. 09/536,945 filed on 3/28/2000.

***Information Disclosure Statement***

2. The information disclosure statement (IDS) submitted on 6/22/2000 is being considered by the examiner.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kurowski (U.S. Patent No. 6,553,127) in view of Leighton (U.S. Patent No. 5,949,885).

In respect to claim 1, Kurowski discloses a method for discouraging a theft of content material comprising:

Collecting a plurality of data items comprising the content material to form a data set that is sized of blocks (see Kurowski, col. 11, lines 27-43).

Each of the plurality of data items having an associated security identifier that is configured such that a modification of the data item effects a modification of the security identifier (see Kurowski, col. 5, lines 27-40, watermark).

Kurowski does not disclose but Leighton discloses:

Creating an entirety parameter based on a plurality of the security identifiers; and including the entirety parameter in the data set (see Leighton, col. 5, line 66-col. 6, line 16). It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the computation of watermark vectors (security identifier) using a hash function  $H$  (entirety parameter) taught by Leighton to embed information for copy protection that the user desires to control whether copying is authorized or forbidden (see Leighton, col. 5, line 65-col. 6, line 5).

In respect to claim 2, Kurowski and Leighton disclose the method of claim 1, wherein the entirety parameter includes a hash value of a composite of the plurality of security identifiers (see Leighton, col. 5, line 66-col. 6, line 16).

In respect to claim 3, Kurowski and Leighton disclose the method of claim 1, wherein the security identifier includes at least one of:

A watermark that is embedded in the corresponding data item

A hash value that is based on the corresponding data item (see Leighton, col. 5, line 66-col. 6, line 16).

In respect to claim 4, disclose the method of claim 3, wherein the watermark includes:

A robust watermark that is configured such that a removal of the robust watermark causes a corruption of the corresponding data item, and

A fragile watermark that is configured such that a modification of the corresponding data item causes a corruption of the fragile watermark (see Kurowski, col. 12, lines 10-28).

In respect to claim 5, Kurowski and Leighton disclose the method of claim 3, wherein the entirety parameter includes a hash value of a composite of the watermarks corresponding to the plurality of security identifiers (see Leighton, col. 5, line 66-col. 6, line 16).

In respect to claim 6, Kurowski and Leighton disclose the method of claim 1, wherein the plurality of data items includes a plurality of at least one audio and video content but does not explicitly disclose said video and audio are encoded. However, digitally encoded audio and video content is old and well known. It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the data set as digitally encoded video and audio content with Kurowski and Leighton's teaching of embedding watermark in audio, video to prevent unlawful copying.

In respect to claim 7, Kurowski and Leighton disclose the method of claim 1, wherein the entirety parameter is bound to a table of contents that is associated with the data set (see Leighton, col. 5, line 67-col. 6, line 2).

In respect to claim 8, Kurowski and Leighton disclose the method of claim 1, further including:

Creating a plurality of other entirety parameters, each of the plurality of other entirety parameters being based on an associated plurality of security identifiers, and including the plurality of other entirety parameters in the data set to further facilitate a preclusion of processing of each data item in the absence of an entirety of the data set (see Leighton, col. 7, line 62-col. 8, line 10).

In respect to claim 9, Kurowski discloses a method of decoding content material from a source comprising:

reading a plurality of security identifiers from the source, each security identifier corresponding to a data item of the content material (see col. 4, lines 19-30, watermark).

Kurowski does not disclose but Leighton discloses reading an entirety parameter corresponding to content material from the source, determine an entirety value based on the plurality of security identifiers (see col. 5, line 65-col. 6, line 16),

rendering the content material from the source in dependence upon a correspondence between the entirety value and the entirety parameter (see col. 5, line 65-col. 6, line 16). It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the computation of watermark vectors (see security identifier) using a hash function  $H$  (entirety parameter) taught by Leighton to embed information for copy protection that the user desires to control whether copying is authorized or forbidden (see Leighton, col. 5, line 65-col. 6, line 5).

In respect to claim 10, Kurowski and Leighton disclose the method of claim 9, wherein reading the entirety parameter includes a random selection from a set of entirety parameters, each entirety parameter of the set of entirety parameters having an associated set of security identifiers (see Leighton, col. 5, line 66-col. Line 6).

In respect to claim 17, Kurowski discloses a storage medium that is configured to contain content material, the storage medium comprising:

A data structure that includes:

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A plurality of data items, each data item having an associated security identifier, and wherein each security identifier of the plurality of security identifiers is configured such that a modification of the data item effects a modification of the security identifier (see Kurowski, col. 11, lines 27-43).

Kurowski does not disclose but Leighton discloses:

and an entirety parameter that is dependent upon a plurality of the security identifier; and the entirety parameter facilitates a determination of whether an entirety of the plurality of data items is present on a subsequent copy of at least a portion of the plurality of data items (see col. 5, line 66-col. 6, line 16). It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the computation of watermark vectors (Security identifier) using a hash function H (entirety parameter) taught by Leighton to embed information for copy protection that the user desires to control whether copying is authorized or forbidden (see Leighton, col. 5, line 65-col. 6, line 5).

In respect to claim 18, Kurowski and Leighton disclose the storage medium of claim 17, further including a plurality of other entirety parameters, each of the plurality of other entirety parameters being dependent upon an associated plurality of security identifiers (see Leighton, col. 7, line 62-col. 8, line 10).

In respect to claims 11-16, 26-32, 19-24, 26-31, and 35-40, the claims limitations are substantially similar to method claims 2-7 and therefore the same rejection applied.

In respect to claims 32, the claim limitation is substantially similar to claim 8 and therefore the same rejection applied.

In respect to claim 25, the claim limitation is a system claim which is substantially similar to the method claim 1 and therefore the same rejection applied.

In respect to claim 33, the claim limitation is a system claim which is substantially similar to the method claim 9 and therefore the same rejection applied.

In respect to claim 34, the claim limitation is a system claim which is substantially similar to the method claim 10 and therefore the same rejection applied.

### ***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

-Bruckers et al. disclose embedding supplemental data in an encoded signal such as audio/video watermarks.

-Conever et al. Discloses embedding watermarks into compressed video data.

-Cox et al. Discloses a counteracting geometric distortion for DCT based watermarking.

-Cox discloses spread spectrum watermark for embedded signaling.

-Wolfgang et al. Disclose authentication of signals using watermarks.

-Liao discloses cocktail watermarking on images.

-Matsumoto et al. Discloses copying of digital data from a digital recording medium is controlled so as to prevent unauthorized copying.

-Schmann et al. disclose a system and methodology for tracing to a source of unauthorized copying of prerecording proprietary material such as movies.

-Vora discloses a robust watermark for digital objects.



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-Rhoads discloses a method and system for encoding image and audio content.

-Wehrenberg discloses a method and apparatus for copy protection.

-Cox et al. Disclose secure spread spectrum watermarking for multimedia data.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tongoc Tran whose telephone number is (703) 305-7690. The examiner can normally be reached on 8:30-5:00 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory A. Morse can be reached on (703) 308-4789. The fax phone number for the organization where this application or proceeding is assigned is (703) 746-7240.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-9600.

Examiner: Tongoc Tran  
Art Unit: 2134

TT  
December 22, 2003

*Matthew B. Smithers*  
**MATTHEW SMITHERS**  
**PRIMARY EXAMINER**  
*Art Unit 2137*